What is claimed is:

1. An electrophoresis apparatus comprising:

an inner electrode positioned in an inner electrolyte zone;

a substantially non-planar outer electrode positioned in an outer electrolyte zone, wherein the outer electrode in the outer electrolyte zone is disposed relative to the inner electrode in the inner electrolyte zone so as to be adapted to generate a radial electric field in an electric field area therebetween upon application of a selected electric potential between the inner and outer electrodes;

a first substantially non-planar membrane disposed in the electric field area;

a second substantially non-planar membrane disposed between the inner electrolyte zone and the first membrane so as to define a first interstitial volume therebetween, wherein the first interstitial volume is separated from the inner and outer electrolyte zones by the first and second membranes;

means adapted to communicate fluids to the inner electrolyte zone, the outer electrolyte zone, and the first interstitial volume; and

means adapted to provide a sample constituent to the first interstitial volume, wherein upon application of the electric potential at least one component in the sample constituent is caused to move through at least one membrane to an adjacent electrolyte zone.

2. The apparatus according to claim 1 further comprising means adapted to receive a selected voltage and means adapted to apply an electric potential corresponding thereto across at least the electric field area.

3. The apparatus according to claim 1 further comprising:

an elongated housing having first and second opposing ends and an interior portion containing the inner and outer electrodes and the membrane;

a first manifold positioned at the first opposing end of the housing, the first manifold having means adapted to communicate at least one associated fluid with at least one of the electrolyte zones and the interstitial volume; and

a second manifold positioned at the second opposing end of the housing, the second manifold having means adapted to communicate at least one associated fluid with at least

one of the electrolyte zones and the interstitial volume.

4. The apparatus according to any one of claims 1 wherein the membranes are selected from the group consisting of electrophoresis membranes having defined pore sizes, charged membranes, electro-endo-osmosis membranes, and combinations thereof.

5. The apparatus according to claim 4 wherein the electrophoresis separation membranes are made from polyacrylamide and have a molecular mass cut-off of at least about 1 kDa.

6. The apparatus according to claim 4 wherein the charged membranes are selected from the group consisting of iso-electric membranes and amphoteric membranes

7. The apparatus according to claim 4 wherein the electro-endo-osmosis membranes are formed from the group consisting of cellulose tri-acetate membrane and polyvinyl alcohol.

8. The apparatus according to claim 1 further comprising a plurality of generally coaxial membranes disposed between the inner and outer electrolyte zones forming a plurality of interstitial volumes.

9. The apparatus according to claim 1 wherein the membranes are disposed in a non-planar shape selected from the group consisting of dish, u-shape, cone, oval, circular, and cylindrical.

10. An electrophoresis apparatus comprising:

an inner electrode positioned in an inner electrolyte zone;

a substantially non-planar outer electrode positioned in an outer electrolyte zone, wherein the outer electrode in the outer electrolyte zone is disposed relative to the inner electrode in the inner electrolyte zone so as to be adapted to generate a radial electric field in an electric field area therebetween upon application of an electric potential between the inner and outer electrodes;

a first substantially non-planar membrane disposed in the electric field area;

a second substantially non-planar membrane disposed between the inner electrolyte zone and the first membrane so as to define a first interstitial volume therebetween;

a third substantially non-planar membrane disposed between the outer electrolyte zone and the first membrane so as to define a second interstitial volume therebetween, wherein the first interstitial volume is separated from the inner electrolyte zone by the second membrane and the second interstitial volume is separated from the outer electrolyte zone by the third membrane;

means adapted to communicate fluids to the inner electrolyte zone, the outer electrolyte zone, the first interstitial volume and the second interstitial volumes; and

means adapted to provide a sample constituent to at least one of the interstitial volumes, wherein upon application of the electric potential at least one component in the sample constituent is caused to move through at least one membrane to an adjacent electrolyte zone or interstitial volume.

11. The apparatus according to claim 10 further comprising means adapted to receive a selected voltage and means adapted to apply an electric potential corresponding thereto across at least the electric field area.

12. The apparatus according to claim 10 further comprising:

an elongated housing having first and second opposing ends and an interior portion containing the inner and outer electrodes and the membrane;

a first manifold positioned at the first opposing end of the housing, the first manifold having means adapted to communicate at least one associated fluid with at least one of the electrolyte zones and the interstitial volume; and

a second manifold positioned at the second opposing end of the housing, the second manifold having means adapted to communicate at least one associated fluid with at least one of the electrolyte zones and the interstitial volume.

13. The apparatus according to any one of claims 10 wherein the membranes are selected from the group consisting of electrophoresis membranes having defined pore sizes,

charged membranes, electro-endo-osmosis membranes, and combinations thereof.

14. The apparatus according to claim 13 wherein the electrophoresis separation membranes are made from polyacrylamide and have a molecular mass cut-off of at least about 1 kDa.

15. The apparatus according to claim 13 wherein the charged membranes are selected from the group consisting of iso-electric membranes and amphoteric membranes.

16. The apparatus according to claim 13 wherein the electro-endo-osmosis membranes are formed from the group consisting of cellulose tri-acetate membrane and polyvinyl alcohol.

17. The apparatus according to claim 10 further comprising a plurality of generally coaxial membranes disposed between the inner and outer electrolyte zones forming a plurality of interstitial volumes.

18. The apparatus according to claim 10 wherein the membranes are disposed in a non-planar shape selected from the group consisting of dish, u-shape, cone, oval, circular, and cylindrical.

19. An electrophoresis apparatus comprising:

an inner electrode positioned in an inner electrolyte zone;

a substantially non-planar outer electrode positioned in an outer electrolyte zone, wherein the outer electrode in the outer electrolyte zone is disposed relative to the inner electrode in the inner electrolyte zone so as to be adapted to generate a radial electric field in an electric field area therebetween upon application of a selected electric potential between the inner and outer electrodes;

at least one substantially tubular membrane disposed radially outward of an axis in the electric field area, wherein the inner electrode disposed generally along such axis, and

wherein the tubular membrane has an exterior surface and an interior surface and the interior surface of the tubular membrane forms a first interstitial volume;

means adapted to communicate fluids to the inner electrolyte zone, the outer electrolyte zone, and the first interstitial volume; and

means adapted to provide a sample constituent to at least the first interstitial volume, wherein upon application of the electric potential at least one component in the sample constituent is caused to move through at least one membrane to an adjacent electrolyte zone.

20. The apparatus according to claim 19 further comprising:

a plurality of substantially tubular membranes disposed radially outward of an axis in the electric field area, wherein the inner electrode disposed generally along such axis, and wherein the tubular membranes have an exterior surface and an interior surface and the interior surface of each tubular membrane forms an interstitial volume; and

means adapted to communicate fluids to the interstitial volumes, wherein at least one of the fluids contains a sample constituent, and wherein upon application of the electric potential at least one component in the sample constituent is caused to move through at least one membrane to an adjacent electrolyte zone.

21. The apparatus according to claim 20 further comprising:

an elongated housing having first and second opposing ends and an interior portion containing the inner and outer electrodes and the membranes;

a first manifold positioned at the first opposing end of the housing, the first manifold having means adapted to communicate at least one associated fluid with at least one of the electrolyte zones and the interstitial volumes; and

a second manifold positioned at the second opposing end of the housing, the second manifold having means adapted to communicate at least one associated fluid with at least one of the electrolyte zones and the interstitial volumes.

22. The apparatus according to any one of claims 20 wherein the membranes are selected from the group consisting of electrophoresis membranes having defined pore sizes,

charged membranes, electro-endo-osmosis membranes, and combinations thereof.

23. The apparatus according to claim 22 wherein the electrophoresis separation membranes are made from polyacrylamide and have a molecular mass cut-off of at least about 1 kDa.

24. The apparatus according to claim 22 wherein the charged membranes are selected from the group consisting of iso-electric membranes and amphoteric membranes.

25. The apparatus according to claim 22 wherein the electro-endo-osmosis membranes are formed from the group consisting of cellulose tri-acetate membrane and polyvinyl alcohol.

26. A method for concentrating or de-salting a sample constituent by electrophoresis comprising:

communicating fluids to an inner electrolyze zone and an outer electrolyte zone, wherein the inner and outer electrolyte zones each contain an electrode and the outer electrode is disposed relative to the inner electrode so as to be adapted to generate a radial electric field in an electric field area therebetween upon application of an electric potential between the inner and outer electrodes;

communicating a sample constituent to a first interstitial volume defined by a first substantially non-planar membrane disposed in the electric field area and a second substantially non-planar membrane disposed between the inner electrolyte zone and the first membrane, wherein the first interstitial volume is separated from the inner and outer electrolyte zones by the first and second membranes; and

applying a selected electric potential across at least the electric field area wherein upon application of the electric potential at least one component in the sample constituent is caused to move through at least one membrane to an adjacent electrolyte zone so as to obtain a treated sample in the first interstitial volume.

27. The method according to claim 26 further comprising collecting the treated sample from the first interstitial volume.

28. A method for concentrating or de-salting a sample constituent by electrophoresis comprising:

communicating fluids to an inner electrolyze zone and an outer electrolyte zone, wherein the inner and outer electrolyte zones each contain an electrode and the outer electrode is disposed relative to the inner electrode so as to be adapted to generate a radial electric field in an electric field area therebetween upon application of an electric potential between the inner and outer electrodes;

communicating fluids to at least one of the first interstitial volume and second interstitial volume, wherein the first interstitial volume is defined by a first substantially non-planar membrane disposed in the electric field area and a second substantially non-planar membrane disposed between the inner electrolyte zone and the first membrane, wherein the second interstitial volume is defined by the first membrane and a third substantially non-planar membrane disposed between the first membrane and the outer electrolyte zone, wherein the first interstitial volume is separated from the inner electrolyte zone by the second membrane and the second interstitial volume is separated from the outer electrolyte zone by the third membrane;

proving a sample constituent to at least one of the first and second interstitial volumes; and

applying a selected electric potential across at least the electric field are, wherein upon application of the electric potential at least one component in the sample constituent is caused to move through at least one membrane to an adjacent electrolyte zone or interstitial volume so as to obtain a treated sample in at least one of the first and second interstitial volumes.

29. The method according to claim 28 further comprising collecting the treated sample from at least one of the first and second interstitial volumes.

30. A method for concentrating or de-salting a sample constituent by electrophoresis comprising:

communicating fluids to an inner electrolyze zone and an outer electrolyte zone, wherein the inner and outer electrolyte zones each contain an electrode and the outer electrode is disposed relative to the inner electrode so as to be adapted to generate a radial electric field in an electric field area therebetween upon application of an electric potential between the inner and outer electrodes;

communicating a sample constituent to at least first interstitial volume disposed in the electric field area, wherein the first interstitial volume is defined by a substantially tubular membrane disposed radially outward of an axis in the electric field area, wherein the inner electrode disposed generally along such axis, and wherein the tubular membrane has an exterior surface and an interior surface and the interior surface forms the first interstitial volume; and

applying a selected electric potential across at least the electric field area wherein upon application of the electric potential at least one component in the sample constituent is caused to move through at least one membrane to an adjacent electrolyte zone so as to obtain a treated sample in the first interstitial volume.

31. A method for concentrating or de-salting a sample constituent by electrophoresis comprising:

communicating fluids to an inner electrolyze zone and an outer electrolyte zone, wherein the inner and outer electrolyte zones each contain an electrode and the outer electrode is disposed relative to the inner electrode so as to be adapted to generate a radial electric field in an electric field area therebetween upon application of an electric potential between the inner and outer electrodes;

communicating fluids to a plurality of interstitial volumes disposed in the electric field area, wherein the interstitial volumes are defined by a plurality of substantially tubular membranes disposed radially outward of an axis in the electric field area, wherein the inner electrode disposed generally along such axis, and wherein each tubular membrane has an exterior surface and an interior surface and the interior surface forms the interstitial volume; and

applying a selected electric potential across at least the electric field area wherein upon application of the electric potential at least one component in the sample constituent is caused to move through at least one membrane to an adjacent electrolyte zone so as to obtain a treated sample in at least one of the interstitial volumes.